

**APPENDIX A - SPECIFICATION/CLAIM AMENDMENTS
INCLUDING NOTATIONS TO INDICATE CHANGES MADE**

Serial No.: 09/981,286
Docket No. 265.00260101

Amendments to the following are indicated by underlining what has been added and bracketing what has been deleted. Additionally, all amendments have been shaded.

In the Specification

The paragraph beginning at page 20, line 20, has been amended as follows:

The tat-CCD construct was produced by PCR using CCD in the pET30 vector and the primers N-TATCCD

(5' ATGTACGGTCGTAAAAACGTCGTCAGCGTCGTCGTGTCATGAAATTGGAATCTG ACA3' SEQ ID NO:35) and CBAM-VEE

(5' GAATTTCGGATCCTCATTACCATTTGCTCGCAGTTCTCCGGAGT3' SEQ ID NO:36).

The PCR product was phenol-chloroform extracted and was ligated into the pETBLUE vector. It was then transformed into NovaBlue Singles (Novagen) and plated on LB-Bluogal-IPTG-carbenicillin-tetracycline plates. White colonies were selected for amplification, plasmid purification, and sequencing. The tat-CCD cDNA sequence was determined and is depicted in Figure 3.

The paragraph beginning at page 26, line 28, has been amended as follows:

Additional approaches to constructing the insert containing the library are also being used. One of these approaches involves annealing a negative strand of LIB (termed LIB r/c) to LIB itself. The LIB r/c sequence was (5' TCGAGGGAACCACC(MNN)mACCACCGGAG (SEQ ID NO:25)), where M= C, A. When LIB and LIB r/c were annealed, cohesive ends for BamHI and XhoI are formed. Another approach is to use Sequenase V 2.0 (USB, Cleveland, Ohio) to synthesize the negative LIB strand. The oligos for this are LIBSEQBAM (5' GCACGGATCCTCCGGTGGT(NNK)m[o]GGTGGTTCCCTCGAGATCG (SEQ ID NO:26)) and SEQBAM Rev (5' CGATCTCGAGGGAACCATC (SEQ ID NO:27)). This sequenase product is then digested with BamHI (Promega, Madison, WI), and XhoI for insertion into the tat-CCD:BAM expression vectors.



Alignment of adaptein nucleotide sequences with CCD sequence:

SEQ ID NO: 31A-1 GTCATGAAAT TGGAAATCTGA CAAGACGTTT CCAATCATGT TGGGAAGGGAA
SEQ ID NO: 32A-2 GTCATGAAAT TGGAAATCTGA CAAGACGTTT CCAATCATGT TGGGAAGGGAA
SEQ ID NO: 12 CCD GTCATGAAAT TGGAAATCTGA CAAGACGTTT CCAATCATGT TGGGAAGGGAA

A-1 GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC
A-2 GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC
CCD GATAAACGGC TACGCTTGTG TGGTCGGAGG GAAGTTATTC AGGCCGATGC

A-1 ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
A-2 ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG
CCD ATGTGGAAGG CAAGATCGAC AACGACGTTT TGGCCGCGCT TAAGACGAAG

A-1 AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
A-2 AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG
CCD AAAGCATCCA AATACGATCT TGAGTATGCA GATGTGCCAC AGAACATGCG

A-1 GGCCGATACA TTCAAATACA CCCATGAGAA ACCCAAGGC TATTACAGCT
A-2 GGCCGATACA TTCAAATACA CCCATGAGAA ACCCAAGGC TATTACAGCT
CCD GGCCGATACA TTCAAATACA CCCATGAGAA ACCCAAGGC TATTACAGCT

A-1 GGCATCATGG AGCAGTCCAA TATGAAAATG GCGTTTCAC GGTGCCGAAA
A-2 GGCATCATGG AGCAGTCCAA TATGAAAATG GCGTTTCAC GGTGCCGAAA
CCD GGCATCATGG AGCAGTCCAA TATGAAAATG GCGTTTCAC GGTGCCGAAA

A-1 GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
A-2 GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG
CCD GGAGTTGGGG CCAAGGGAGA CAGCGGACGA CCCATTCTGG ATAACCAGGG

A-1 AGGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
A-2 AGGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG
CCD AGGGGTGGTC GCTATTGTGC TGGGAGGTGT GAATGAAGGA TCTAGGACAG

(HindIII) (XhoI)
A-1 CCCTTTCAGT CGTCATGTGG AAC---AAGCTT TCTCCACATTA TGCTCAA CTCGAG
A-2 CCCTTTCAGT CGTCATGTGG AAC---AAGCTT AGAAGCGGTAC TCAATGG CTCGAG
CCD CCCTTTCAGT CGTCATGTGG AACGAG-----

A-1 ---GGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC
A-2 ---GGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC
CCD AAGGGAGTTA CCGTGAAGTA TACTCCGGAG AACTGCGAGC AATGGTAATGAGC

Figure 2B

Figure 2C

Alignment of adaptein protein sequences with CCD sequence:

SEQ ID NO: 33 A-1 VMKLESDKTF PIMLEGKING YACVVGGKLF RPMHVEGKID NDVLAALKTK
SEQ ID NO: 34 A-2 VMKLESDKTF PIMLEGKING YACVVGGKLF RPMHVEGKID NDVLAALKTK
SEQ ID NO: 1 CCD VMKLESDKTF PIMLEGKING YACVVGGKLF RPMHVEGKID NDVLAALKTK

A-1 KASKYDLEYA DVPQNMRA DT FKYTHEKPQG YYSWHHGAVQ YENGRFTVPK
A-2 KASKYDLEYA DVPQNMRA DT FKYTHEKPQG YYSWHHGAVQ YENGRFTVPK
CCD KASKYDLEYA DVPQNMRA DT FKYTHEKPQG YYSWHHGAVQ YENGRFTVPK

A-1 GVGAKGDSGR PILDNQGRVV AIVLGGVNEG SRTALSVVMW N-KLSPHYAQL
A-2 GVGAKGDSGR PILDNQGRVV AIVLGGVNEG SRTALSVVMW N-KLRSGTQWLE
CCD GVGAKGDSGR PILDNQGRVV AIVLGGVNEG SRTALSVVMW NE-----

A-1 -GVTVKYTPE NCEQW
A-2 -GVTVKYTPE NCEQW
CCD KGVTVKYTPE NCEQW